

A BIPOLAR BATTERY CELL AND ASSEMBLED BATTERY FOR A VEHICLE

ABSTRACT

The invention relates to a bipolar battery cell having a built-in discharge circuit that can automatically balance the charged conditions. The bipolar battery cell includes a plurality of bipolar electrodes, each including a collector having a positive-electrode layer on one surface and a negative-electrode layer on another surface. The bipolar battery cell further includes a plurality of electrolyte layers that exchange ions between the bipolar electrodes; and a discharge circuit that electrically conducts adjacent bipolar electrodes. The discharge circuit is provided on the same surface of at least one layer of the positive-electrode layers, the negative-electrode layers, or the electrolyte layers. Multiple bipolar battery cells are combined to form an assembled battery for vehicular applications.